

DRAWING AMENDMENTS

Kindly replace the sheet of drawings, bearing FIGS. 26a-30, as originally filed, with the attached Replacement Sheet. The legend Replacement Sheet appears at the top of the new sheet of drawings.

FIGS. 26a - 26b have been re-drawn to better outline, and further explain, applicant's invention. The new figures show why some panels are spaced and tied, and others (panels) are not, even when employing modified panels.

REMARKS

Claims 1-25 have been cancelled in favor of newly drafted claims 26-48. Method claims 26 and 38 are independent in format. Claims 27-37 and 39-48 are dependent, either directly or indirectly, upon claim 26.

Claims 26-48 have been presented in order to clarify the metes and bounds of applicant's invention, and to distinguish same from the prior art cited by the Examiner and known to the applicant. The following comments should prove to be helpful to better comprehension of the claim terminology utilized in claims 26-48.

Clauses (d) and (e) of claim 26 help clarify the invention.

Claim 27 has been adjusted for clarity.

Claim 28 now stresses that the slots in the boxing modules are opened to the outside edge.

Claim 29 emphasizes that push-in ties can be used on any vertical or horizontal connectable edge.

Claim 30 specifies the type of quick release clamping device.

Claim 31 recites that a spaced and tied module is connected to an individual panel or module.

Claim 32 points out that one type of panel can adjoin or connect with a completely different panel.

Claim 33 clarifies the manner in which some panels were joined and others were not.

Claim 34 has been changed.

Claim 35 now includes the words "angle irons" to help as a reinforcing agent.

Claim 36 also includes the words "angle irons" to increase the strength.

Claim 37 clarifies the manner in which the staggered formation can assimilate with the tied and spaced modules and panels and individual panels to form a unique concept.

Claim 38 explains that the formwork is supported from a load bearing surface below.

Claim 39 stresses that additional ties are utilized to increase the strength of the same.

Claim 40 clarifies that there are various connectable surfaces on an untied individual module or panel.

Claim 41 highlights the alternate formations of the formwork.

Claim 42 notes further points out the vertical or horizontal stacked formations of the formwork.

Claim 43 points out that horizontal and vertical reinforcement bars help stiffen the formwork internally.

Claim 44 points out that the bracing devices can be vertical, horizontal, or angular in orientation.

Claim 45 points out that the boxing modules are rota-molded, a departure from prior techniques.

Claim 46 clarifies the concept of how corner panels can be converted to vertical columns.

Claim 47 stresses that the modules may be provided with external, or internal, stiffening.

Claim 48 notes that the formwork is further stiffened by connecting reinforcing bars to the ties within the spaced and tied modules.

Turning now to the objections raised by the Examiner with regard to claims 1, 3-6, and 14, such claims have been cancelled, but the objections were considered in drafting new claims 26-48.

With regard to the rejection of claims 8 and 13, under 35 USC §112, second paragraph, the rejection was considered in drafting new claims 26-48. The new claims particularly point out, and distinctly claim, applicant's novel subject matter.

U.S. Patent 5,860,262, Johnson, should not be cited against the substance of claims 26-28. FIG. 18a of Johnson depicts a vertical column, not a horizontal column.

A surface below means, in multi-level construction, that the surface below is a slab or another pre-finished load bearing surface.

The Examiner asserts that it is obvious to one of ordinary skill in the art at the time of the invention was made to modify the concrete forms of Scalamandre to include reinforcing means to strengthen the structure. This is not possible as the spacer tie rods are made of quarter inch diameter rod stock. This would not be adequate to carry reinforcement bars especially if concrete is dropped from a height into the void between the forms. It would force the panels out of vertical alignment. One may say increase the diameter of the spacer tie. If this occurs, the panels will open wider and concrete would pour out of these openings in between the panels as shown in Figure 1 of Scalamandre.

One may say "file out a groove in the surrounding metal frame to accommodate the spacer tie". If this was the case, it would severely weaken the structural member which holds the ply in place. There is no obvious solution.

The Examiners' assertion notwithstanding, it is not obvious to a skilled person to modify the spacer tie of Boshart in order to adjust the spacing between the forms. Boshart's ties are designed to push through foam formwork only and this procedure would be extremely difficult to

push through metal or timber form ply. Boshart instructs "push in ties", but this statement is incorrect as it is only an exterior push-in stop-end bracket (item 42). It should be noted that wedge bolts are completely different from applicant's prize-out quick release devices, because the slot is perpendicular and not open to the spherical edge of the module or panel for quick release.

In contrast to the Examiner's assertion on page 7 of the Office Action, Scalamandre does not teach that some are joined and some are not. Top and bottom panels are joined by the spacer ties. The meaning of this terminology is, as explained in the new claims, that the spaced and tied transversely opposed panels hold, join, or support, untied and unspaced individual panels.

In the second paragraph of page 8 of the Office Action, Scalamandre discloses that a tie/spacer could be regarded as a quick attachment tie, but not as a "quick release device".

Furthermore, if the teachings of May were aligned with the combination of Scalamandre and Boshart, the result would be completely unworkable, because each system is unique to its own concept. The introduction of spaced apart bolts and sockets would impede their function. Boshart's foam panels would be most susceptible to separating apart due to wall failure. Scalamandre's panels would deflect under load because there is no provision for attachment, and also take a long time to assemble, and sacrifice the original quick assembly concept.

With regard to page 10 of the Office Action, the combination of elongated straps to Boshart and Scalamandre, as taught by Mikus' horizontal strap, is again totally unworkable, in theory and in reality. Scalamandre's straps would not be able to attach, and if they could would do very little to stiffen the structure, and with Boshart's, it could only attach as a whaler (which would not be classified as a strap).

On page 12 of the Office Action, the Examiner assumes the teachings of Sanders' dustbin lid could be used for Scalamandre's and Boshart's panels. This opinion is incorrect for Scalamandre's ties would shear through plastic trying to hold them from separating or floating. Floating is a term used in formwork to describe the effects of dense material being placed in the void which makes the formwork float in the event it is not held down properly. These ties would cause a shearing effect on the plastic by shearing through the connection points which would in turn, float the formwork vertically. As for Boshart, it would be impossible to push the tie through the plastic and, if modified, it would require an inventive step; based upon the applicant's actual experience in the formwork technology.

Rotomoulded panels are not an obvious choice for formwork, as plastic is known to deflect and deform and not hold its true shape. In fact, early examples that the applicant has experimented with for formwork failed consistently. Rotomoulding is a drawn out plastic

manufacture, whereas injection or forced moulding is a quick repetitive process, and the two are completely different, unrelated processes.

The teachings of Sanders are not relevant to formwork for it would not be able to withstand the forces of dropping concrete from a significant height. To make the panels effective in-built stiffeners would have to be designed and engineered. The twin chambers are not the same as the physically cut in half panels which applicant presents as an integral part of his invention.

Robert Bordener's teachings are not relevant to the claimed method, for it is compression moulding, known as injection moulding, which has nothing in common with the rotomoulding process envisioned by applicant.

Figure 1 of Wilson discloses a strap only to preserve the curvature with preset radial distances. If this was obvious why have they not been applied to straight walls in the same diagram for stiffening purposes? This highlights the ineffectiveness of a horizontal strap on straight walls.

Page 13, line 6 of the Office Action suggests that Scalamandre et al teaches that the modules are provided with integral or external stiffening members (spacer ties 12). It should be noted that spacer ties are not stiffening members internally or externally. The function of spacer ties is to hold the panels at a predetermined distance apart and the ties hold these panels in place to prevent them from separating.

Page 13 of the Office Action suggests that Miller's collapsible foam formwork is held together by a grid of 10 gauge wire which vertically protrudes past the panel. If this were to be regarded as steel reinforcement for the concrete, it would induce concrete cancer between the foam panel and the set concrete. It is not asserted by Miller that there are any reinforcing qualities of this wire. The wire in itself would not cause the concrete cancer. As for Scalamandre and Boshart, the combination would be unworkable and introduce failure of their traditional systems.

For the several reasons noted above, claims 26-48 are patentable in content, and have been distinguished from the several prior art patents cited, and applied, by the Examiner. Prompt, and favorable, consideration of the instant Amendment is believed to be in order.

Respectfully submitted,

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Date

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